

IN THE CLAIMS

This is a complete and current listing of the claims, marked with status identifiers in parentheses. The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Original) A method for forming a silicon nitride film, comprising:

 accommodating a substrate in an internal space of a chamber;

 supplying hexaalkyldisilazane

 [$(C_nH_{2n+1})_3SiNHSi(C_nH_{2n+1})_3$] gas and a gas including a nitrogen compound that is plasma-excited to the chamber accommodating the substrate; and

 depositing a reaction product of the hexaalkyldisilazane gas and the gas including a nitrogen compound that is plasma-excited on the substrate to form a silicon nitride film.

2. (Original) The method of claim 1, wherein the substrate is heated to room temperature to 800°C.

3. (Currently Amended) The method of claim 1-~~or 2~~, wherein the hexaalkyldisilazane is hexamethyldisilazane
 [$(CH_3)_3SiNHSi(CH_3)_3$].

4. (Currently Amended) The method of ~~any one of claims 1 to 3~~ claim 1, wherein the nitrogen compound is constituted by a gas including at least one of N₂ and NH₃.

5. (Original) An apparatus for forming a silicon nitride film on a surface of a substrate, comprising:

a chamber in which the substrate is accommodated in its internal space;

first gas supplying means for supplying hexaalkyldisilazane gas to the internal space of the chamber;

second gas supplying means for supplying gas including a nitrogen compound to the internal space of the chamber; and

plasma excitation means that is provided in the second gas supplying means, for plasma-exciting the gas including a nitrogen compound supplied to the internal space of the chamber.

6. (Original) The apparatus of claim 5, wherein a gas supplying portion of the second gas supplying means for supplying gas to the internal space of the chamber has an orifice structure.

7. (Currently Amended) The apparatus of claim 5-~~or 6~~, wherein heating means for heating the substrate is further

provided.

8. (Currently Amended) The apparatus of ~~any one of claims 5 to 7~~ claim 5, wherein the hexaalkyldisilazane is hexamethyldisilazane, and the nitrogen compound is constituted by a gas including at least one of N₂ and NH₃.

9. (New) The method of claim 2, wherein the hexaalkyldisilazane is hexamethyldisilazane [(CH₃)₃SiNHSi(CH₃)₃].

10. (New) The method of claim 2, wherein the nitrogen compound is constituted by a gas including at least one of N₂ and NH₃.

11. (New) The method of claim 3, wherein the nitrogen compound is constituted by a gas including at least one of N₂ and NH₃.

12. (New) The apparatus of claim 6, wherein heating means for heating the substrate is further provided.

13. (New) The apparatus of claim 6, wherein the hexaalkyldisilazane is hexamethyldisilazane, and the nitrogen compound is constituted by a gas including at least one of N₂

and NH₃.

14. (New) The apparatus of claim 7, wherein the hexaalkyldisilazane is hexamethyldisilazane, and the nitrogen compound is constituted by a gas including at least one of N₂ and NH₃.